Listing f Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended):

1. A method for determining failure rate and selecting a best burn-in time, comprising:

providing a plurality of integrated circuits;

performing a life-time testing process, wherein a failure rate versus testing time relation with an acceleration factor function is established by measuring the life-time of each said integrated circuit under a testing environment~~, wherein an acceleration factor function also is established under said testing environment, said acceleration factor function being related to the relationship between a testing time of said testing environment and a real time of a normal operating environment~~;

performing a simulating process~~,~~ by using a test~~ing time~~ life function for curve fitting to simulate said failure rate versus testing time relation and generate a simulated failure rate versus testing time function;

performing a transforming process, using said acceleration factor function to transform said simulated failure rate versus testing time function into a real failure rate versus operation time function, wherein a knee point of said real failure rate versus operation time function corresponds to an operation time which is said best burn-in time; and

performing an integrating process, integrating said real failure rate versus operation time function through a calculating region to acquire a yield ratio~~an accumulated failure rate real time function, wherein said calculating region is a region in which said real time is larger than said best burn in time~~.

Claim 2 (currently amended):

2. The method of claim 1, wherein said failure rate testing time relation is divided into three periods in accordance with value of said testing time, said three periods are an infant mortality period, a normal life period and a wear out period.

Claim 3 (original):

3. The method of claim 1, wherein said acceleration factor function is a constant.

Claim 4 (original):

4. The method of claim 1, wherein said acceleration factor function is a linear function.

Claim 5 (original):

5. The method of claim 1, wherein said acceleration factor function is a nonlinear function.

Claim 6 (currently amended):

6. The method of claim 1, wherein said test~~ing time~~life function for curve fitting is an exponent function.

Claim 7 (canceled)

Claim 8 (currently amended):

8. The method of claim 1, wherein said testing time function for curve fitting is $y=at^b$, wherein a and b are two ~~variables~~parameters, y is ~~said~~ a failure rate and t is ~~said~~ a testing time.

Claim 9 (canceled)

Claim 10 (currently amended):

10. The method of claim 1, wherein said simulating process is adjusted to minimize the difference between said failure rate testing time relation and said test~~ing time~~life function for curve fitting.

Claim 11 (previously presented):

11. The method of claim 2, wherein said integrating process is stopped while said testing time is located in said wear out period, said testing time being corresponding to said real time.

Claim 12-18 (canceled):

Claim 19 (currently amended):

19. A method for determining failure rate and selecting best burn-in time, comprising:

providing a plurality of integrated circuits;

performing a life-time testing process, wherein the life-time of each said integrated circuit is measured under a testing environment and then a failure rate versus testing time relation with an acceleration factor function is established in accordance with a plurality of testing records, ~~wherein an acceleration factor function also is established under said testing environment, said acceleration factor function being related to the~~

~~relationship between a testing time of said testing environments and a real time of a normal operating environment~~;

performing a simulating process, using a testing ~~time~~life function for curve fitting~~polynomial~~ of said testing time to simulate said failure rate testing time relation and generate a simulated failure rate versus testing time function;

performing an optimizing process, part of said testing records are deleted and said corresponding processes are performed again while more than one of said integrated circuits are failed before a specific testing time in which is corresponding to a knee point of said test~~ing~~ ~~time~~life function for curve fitting ~~polynomial~~, and said specific testing time is a best testing time of said integrated circuits while only one of said integrated circuits is failed before said specific testing time;

performing a transforming process[[,]]by using said acceleration factor function to transform said specific testing time into a specific real time and also transform said test~~ing~~life ~~time~~function ~~polynomial~~for curve fitting into a real failure rate versus operation time ~~polynomial~~ function, wherein said specific real time is a best burn-in time for testing said integrated circuits; and

performing an integrating process, integrating said real failure rate versus operation time function through a calculating region to acquire ~~an accumulated failure rate real time function~~ a yield ratio~~, wherein said calculating region is a region in which said real time is larger than said best burn in time~~.

Claim 20 (previously presented):

20. The method of claim 19, wherein said integrating process is stopped while said testing time is located in said wear out period, said testing time being corresponding to said real time.